

Accounting choices in Brazil: identifying the characteristics of publicly traded companies that opted to maintain versus derecognise deferred assets

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ABSTRACT

The issuance of Brazilian Law 11.638/2007 is a critical step in the convergence of the Brazilian Generally Accepted Accounting Principles (GAAPs) towards International Financial Reporting Standards. After the law was implemented and later modified by Provisional Executive Order 449/2008 (converted into Law 11.941/2009), certain accounting choices were allowed during the transition period. The Brazilian GAAPs allowed for restructuring costs and costs related to opening a new facility to be recognised as assets. As a transitional provision, companies were allowed to choose between maintaining or eliminating these values. In this paper, we attempted to identify which company characteristics were associated with this accounting choice. The final sample consisted of Brazilian companies listed on the BM&FBOVESPA, and a logistic regression identified two characteristics. Participation in one of the three different corporate governance levels of the BM&FBOVESPA was associated with the choice to derecognise the deferred assets, while companies decided to maintain the deferred asset if it was relatively large. The empirical evidence reported here contributes to the literature by explaining the manner in which a set of firm characteristics is related to a firm's accounting choices.

Keywords: Accounting choices. Deferred assets. Brazilian Law 11.638/2007. Brazilian Law 11.941/2009.

1 INTRODUCTION

The passage of Law 11.638/2007 marked the beginning of a transition process in Brazilian accounting procedures. The gradual change towards the international accounting model embodied by the International Financial Reporting Standards (IFRS) was carried out by the Committee of Accounting Standards (Comitê de Pronunciamentos Contábeis - CPC) and ratified by regulatory organisations, such as the Securities and Exchange Commission (Comissão de Valores Mobiliários - CVM), the Federal Accounting Council (Conselho Federal de Contabilidade - CFC), the Superintendent of Private Securities (Superintendência de Seguros Privados - SUSEP), and the Central Bank of Brazil¹ (Banco Central do Brasil - Bacen).

The transition can be divided into two phases: the first phase was during 2008, when the initial changes were implemented with the introduction of Law 11.638/2007 and initial decrees from the CPC; the second phase refers to the adoption of the complete set of CPC decrees released through 2010.

This study focuses on the first phase, during which businesses had to apply specific rules during the transition period. The Brazilian legislation permitted two corporate accounting choices: maintaining or derecognising the balance of deferred assets and the balance of revaluation reserves. Thus, Brazil represents a natural experiment on these two choices.

As will be discussed later, the majority of companies that had a balance in revaluation reserves opted to maintain that balance. Thus, we use information on these balances as a control variable and focus on the choice of maintaining or derecognising deferred assets.

The original text of Law 11.638/2007 allowed pre-operational costs and expenses to be cast in deferred assets with restructuring in case the company thought that they would benefit in the future. However, CPC 04 – Intangible Assets established that such costs should be treated as expenses.

The potential conflict between the text of the Law and the technical announcements from the CPC was resolved through the revision of Provisional Measure 449/2008 (MP 449/2008). This measure included Article 299-A in Law 6.404/1976, establishing that the existing balances on 31/12/2008 would be classified as deferred assets and could not be allocated to another

group. These balances could remain assets under this classification until they were fully amortised. Later, Provisional Measure 449/2008 was converted into Law 11.941/2009².

After the publication of Law 11.941/2009, the CPC emitted Technical Decree CPC 13 – Initial Adoption of Law 11.638/07 and Provisional Measure 449/08. The application of this decree became obligatory for publicly traded companies after the publication of Deliberation CVM 565/2008. This document established an option for costs recognised as deferred assets that could not be reclassified to other groups: these costs could be subtracted from the opening balance on the date of transition or maintained in this group until their complete amortisation.

Thus, the initial adoption of Law 11.941/2009 and the CPC's Technical Decree 13 introduced new accounting choices for companies that were defined by Fields, Lys, and Vincent (2001) as decisions in which the principal objective is to influence the result of the accounting system. In this context, this study investigates the following problem: What are the characteristics differentiating companies that decided to maintain *versus* derecognise the balance of deferred assets?

The literature on accounting choices was analysed, and the following potential explanatory variables were identified: the company's level of corporate governance according to BM&FBOVESPA, earnings-based rewards to administrators; the issuance of American Depositary Receipts (ADRs), audits performed by one of the four large auditing firms, revaluation reserves on the transition date, the level of indebtedness, and the relative size of the deferred assets.

The results obtained from the logistic regression model suggest that participating in different levels of corporate governance and the relative size of the balance of deferred assets are associated with the accounting choice regarding deferred assets. There is also evidence that auditing by the four large firms ("Big Four") was associated with maintaining the balance of deferred assets, in contrast with expectations. As will be discussed later, due to sample size, the BigFour variable potentially captures other firm characteristics, as demonstrated in recent studies (Lawrence, Minutti-Meza, & Zhang, 2011). Thus, this finding should be interpreted with caution.

2 THEORETICAL FRAMEWORK

According to Paulo (2007), accounting information is influenced by alternative measurement and disclosure criteria, so the administrator can choose between the standards and practices allowed by existing regulations. According to Fields et al. (2001), accounting choices made by managers are influenced by the existence of agency costs, infor-

mation asymmetry, and externalities.

Agency costs and information asymmetry: Jensen and Meckling (1976) showed that parts of a contract act to maximise personal utility. An "agent" will not always prioritise the interest of the "principal" in his decision. Thus, costs aimed at aligning these interests within an organisation are called agency costs.

¹ Note that the Central Bank of Brazil only adopted some of the technical decrees from the CPC.

² This measure is referred to as Law 11.941/2009 throughout the text instead of as Provisional Measure 449/2008.

Fields et al. (2001) presented two contractual issues that may lead to agency conflict: executive compensation and bond covenants. The tie between executive compensation and earnings and the existence of contractual clauses in debt collection processes create incentives for certain accounting choices to be made to meet a specific set of goals (Watts & Zimmerman, 1986). Such factors can be exacerbated by the fact that managers and suppliers of capital (shareholders and creditors) hold different sets of information, negatively impacting the return required to justify an investment in the firm (Bartov & Bodnar, 1996).

Externalities: The management of accounting information can be defined as the use of discretionary actions by administrators to change the interpretation of the company's economic and financial reality. According to Stolowy and Breton (2004), this practice is motivated by the possibilities of transferring wealth between the company and society (political costs), using wealth to acquire resources (capital costs), or transferring wealth to the administrators themselves (compensation plans).

Each accounting choice is expected to be directed by a set of economic incentives (Fields, Lys, & Vincent, 2001). In Brazil, many studies were developed to focus on earnings management and its relationship with different levels of corporate governance, bonus programs for administrators, and taxes (see, for example, Paulo, 2007, and Perlingeiro, 2009). Compensation plans and tax levels are commonly cited incentives in the literature and are related to certain choices (Watts & Zimmerman, 1986).

In the next section, we describe the variables that were used in this article based on the literature on accounting choices.

2.1 Different levels of corporate governance

Various corporate governance mechanisms are established in a firm to minimise agency conflict by aligning interests (Shleifer & Vishny, 1997). Andrade and Rossetti (2007, p.138) argued that the processes established by a corporation's senior management to meet their goals can be divided into four groups: processes that protect the rights of the parties, systems that direct and monitor the company's activities, the power structure within the corporation, and the regulatory system governing the company's internal and external relations.

The New Market, which was created in 2000, is an example of a voluntary mechanism of signalling an enhanced corporate governance structure. Santana (2008, p.11) stated that the goal of membership in the New Market is to meet the demands of investors. Furthermore, Corporate Governance levels 1 and 2 serve as thresholds allowing for the gradual adaptation of

already listed companies (for cases in which direct migration to the maximum level is not considered feasible).

In an empirical study of publicly traded Brazilian companies in the period between 2003 and 2004, Ramos and Martinez (2006) investigated whether "good" corporate governance practices minimise earnings management and found that firms in New Market levels 1 and 2 showed less variability in discretionary accruals compared to those that did not adhere to the programs.

In contrast, Silveira (2006) found no statistical evidence that companies listed at levels 1 and 2 of Bovespa's corporate governance and that pay their managers through stock options have higher levels of earnings management than unlisted companies.

Thus, this article used different levels of corporate governance as variables that could explain the accounting choice analysed here. The expectation is that this group of companies has a greater incentive to ensure that their financial statements are comparable with those of international companies and thus that these companies would opt to derecognise their deferred assets to reduce accounting differences.

2.2 Administrative participation in profits

As discussed previously, authors such as Watts and Zimmerman (1986) claim that administrators compensated based on earnings have a greater incentive to increase earnings by, for example, manipulating the rules used to calculate earnings or choosing rules that favour increased earnings reports. This assertion is supported by evidence from Healy (1985) and DeGeorge, Patel, and Zeckhauser (1999).

The choice of whether to maintain or derecognise the balance could alter the compensation of administrators. Derecognising the balance of deferred assets against accumulated profits would reduce expenses by amortisation in subsequent periods, giving administrators an incentive to choose this option. Thus, it is expected that administrators will have an incentive to derecognise the balance of deferred charges to avoid the recognition of these expenses.

2.3 Issuance of ADRs

Lopes and Tukamoto (2007) studied earnings management by comparing publicly traded Brazilian companies that issued ADRs with those that did not. Their results did not show statistically significant differences in the level of "management" of financial results based on the issuance of ADRs. The degree of conditional conservatism was also not affected by the issuance of ADRs (Santos & Costa, 2008).

Silveira, Barros, and Famá (2004) claim that the sub-

mission to the regulatory structures demanded by the Securities and Exchange Commission (SEC) required to issue ADRs can increase the company's visibility. Considering that these companies follow both the Brazilian and the North American accounting models³, there is an incentive to make these results highly comparable. Because the United States Generally Accepted Accounting Principles (US-GAAPs) do not allow for the recognition of deferred assets, companies issuing ADRs would have an incentive to lower the balance of this group of assets.

2.4 Auditing

Almeida and Almeida (2007) presented evidence of a difference in the level of discretionary accruals between publicly traded companies audited by the Big Four (Deloitte Touche Tohmatsu, Ernst & Young, KPMG, and PricewaterhouseCoopers) and other auditing firms. The results suggest that the Big Four are associated with a lower degree of earnings management.

Azevedo and Costa (2008) observed the effect of changing the auditing firm on earnings management in publicly traded Brazilian companies and found that a change in auditing firm does not necessarily reduce the level of earnings management in Brazilian companies. As accounting scandals that occurred in the international market led to a growing appreciation of corporate governance practices, Martinez (2010) investigated the correlations between the characteristics of a firm's executive board and auditing firm and the propensity to manage earnings in Brazil. These results showed that national auditing firms were more permissive regarding management practices compared to international firms.

Recently, Lawrence, Minutti-Meza, and Zhang (2011) studied whether the auditing firm influences accounting choices and the quality of disclosed information or whether the effect of the auditing firm arises from other factors. Using a matching procedure, the authors presented evidence that the firm's characteristics are more relevant than those of the auditing firm. Higher quality could result from a better governance structure. Beasley and Petroni (2001) pointed to the relationship between the characteristics of corporate governance, especially the Board of Directors, and the contracting of auditing firms and found that companies with more independent Boards tend to employ higher quality firms (Lin & Liu, 2009). As a result, firms with stronger governance structures present more accurate information (Lopes & Walker, 2012). The current study also uses corporate governance structure as a variable with the expectation that this effect is minimal.

Auditors have an incentive to behave conservatively (Watts, 2003; Feldman & Read, 2010), and derecognising the balance would make the values similar to those of the international model. Thus, it is expected that companies audited by the Big Four will opt to derecognise the balance of the deferred assets.

2.5 Relative size of the deferred balance

Companies with significant balances of deferred assets could have different economic incentives than those with smaller (or insignificant) balances. The methodology for retroactive adjustment can lead the company to derecognise the amount directly into equity, depending on the magnitude of its impact (Cormier, Demaria, Lapointe-Antunes, & Teller, 2009). Companies with significant balances of deferred assets are expected to opt to maintain these balances. However, it is important to control for the size of the company in this analysis because the impact of reducing earnings or future amortisation should be evaluated in light of the company's size.

2.6 Revaluation of fixed assets

Another relevant change introduced by Law 11.638/2007 was the elimination of the spontaneous revaluation of goods. The accounting treatment given to the revaluation reserve balance according to Technical Decree CPC 13 is similar to that given to the balance of deferred assets.

The study conducted by Schvirck and Giasson (2008) sought to distinguish between the economic profiles of companies that revalue assets and those that do not. The authors concluded that companies that do not revalue their fixed assets have better economic-financial indicators than those that do revalue their fixed assets. Lopes and Walker (2012) demonstrated that the option to revalue assets in Brazil is linked to the economic incentives of management rather than the attempt to demonstrate the economic value of assets.

Because the option to maintain or derecognise the revaluation reserve may be associated with similar incentives to the accounting choice for deferred assets, this choice was included as a control variable for companies that had revaluation reserves on 31/12/2007.

2.7 Indebtedness

The ratio between the use of debt capital and the use of equity in the financial structure is determined by several internal and external factors. Silva (2008) analysed the determinants and economic consequences of accounting choices from the perspective of contractual covenants. The results revealed no evidence of changes in opportunistic voluntary practices to avoid violating accounting covenants and showed that administrators take real actions to impact the company's cash flow.

Watts and Zimmerman (1986) hypothesised that companies with more debt would have an incentive to make certain accounting choices. Beatty and Weber (2003) corroborated this claim with empirical evidence of the relationship between established covenants and these choices. Thus, a negative association is expected between indebtedness and the choice to lower the balance of deferred assets.

³ Assuming that the ADR issuers are in levels II and III.

3 METHODOLOGY

The variable studied in this paper is dichotomous because the companies could choose to maintain or derecognise the balance of deferred assets. In this case, it is considered appropriate to implement a logistic regression. The sample used in this study, which is described in Table 1, consists of 96 observations of parent company's financial statements and 144 consolidated statements. Given the sample size, a stepwise procedure was used to mitigate the potential spurious effects of variables unrelated to this choice.

The independent variables used in this study were selected based on the literature and are as follows: the company's level of corporate governance according to BM&FBOVESPA, whether the company's administrators share in earnings, whether the company issues ADRs in the New York Stock Exchange, whether the company is audited by a Big Four auditing firm, the relative size of the deferred assets, the presence of a revaluation reserve of fixed assets, and the level of debt.

This study seeks to determine the relationship between a firm's characteristics and its choice regarding deferred assets. There may be endogeneity between some variables, such as the choice of an auditing firm and the probability of making a specific accounting choice. Thus, these results should be interpreted primarily based on the relationships between the variables rather than as indicators of causality.

3.1 Instruments of data collection

Brazil is different from many countries in its requirement of the publication of individual financial statements (parent company) and consolidated statements. The empirical evidence in the literature on accounting choices is generally based on consolidated data (Fields et al., 2001; Beatty & Weber, 2003; Cormier et al., 2009), and the literature considers the subsidiary company's choices to be defined by those of the parent company.

To contribute to this debate, in this study, the parent company's choice was taken into account based on individual statements to enable the company's decision to be identified without interference from other effects, such as the performance of controlling stockholders in subsidiaries. Using a sensitivity analysis and according to the international literature, the analysis was also performed using consolidated financial statements. For example, some parent companies act as holding companies, with a significant part of earnings and assets only represented in the consolidated form.

The information was primarily collected through the Economática database, with the main filter set as non-financial companies listed on BM&FBovespa that had a balance of deferred assets on 31/12/2007. After identifying these companies, their accounting

statements were obtained through the Securities and Exchange Commission's website (Standard Financial Statements/Demonstrações Financeiras Padronizadas - DFP). Some companies, such as Magnetisa, Datasul, and Eleva, were excluded because they had cancelled their registration during 2008 and thus did not submit financial statements during the period in which the choice was made.

The explanatory notes of each company were analysed to identify the choice of whether to maintain or derecognise the balance of deferred assets. Analysing the notes is justified because if a company had a "zero" balance at the end of 2008, its choice to have a low balance of deferred assets or simply a reduction would be explained by a transfer to other groups, such as intangible assets, according to CPC 13. The companies that simply transferred the balance were excluded from the analysis because they did not make a decision; instead, they were constrained by another accounting decree.

The explanatory notes of 151 companies (189 consolidated) that had balances in deferred assets for the year 2007 were analysed. Only 55 of these companies (45 consolidated) reclassified their balances to other groups. After this exclusion, the final sample consisted of 96 companies (144 consolidated) with a balance of deferred assets subject to choice, as shown in Table 1 below.

Table 1 Identificacion of companies with balances of deferred assets subject to choice

	Parent Company	Consolidated
Companies with deferred assets on 31/12/2007	151	189
(-) reclassification of a deferred assets balanced to other groups	(55)	(45)
(=) Companies with a deferred assets balance subject to choice	96	144

The companies were divided in two groups:

- Group 1: 54 companies (91 consolidated) that opted to maintain the balances in December 2008 after the reclassifications were made mandatory and
- Group 2: 42 companies (53 consolidated) that opted to derecognise the balance of deferred assets in December 2008.

The amount of the deferred asset balance subject to choice was determined by reading financial statements published on 31/12/2008. For the companies that chose to keep the balance, the amount shown on 31/12/2008 was used. For those that opted to derecognise the balance, the figure reported in the quarterly report for

the third quarter of 2008 was used as a proxy because the amount does not appear on the 2008 financial statements (“zero” balance). Note that some companies continued to recognise pre-operating expenses and restructuring during 2008 because Provisional Measure 449/2008 was only published in December 2008.

Information on companies that issued ADRs were collected through the New York Stock Exchange’s website. This procedure was adopted in case there were no companies that emitted an ADR after the 2008 balance, as such a situation would skew the analysis.

The variables related to the type of auditing company (Big Four or not), different levels of corporate governance, and compensation of administrators based on profits were obtained through the Annual Information (Informações Anuais - IAN) available on the Securities Commission’s website.

3.2 Model

In this study, the dependent variable is the binary variable capturing the choice between two valid accounting choices.

The dummy variable for Accounting Choice (AC) was defined as 0 if the AC was to derecognise the balance of the deferred assets and 1 if the AC was to maintain the deferred balance until the end of its amortisation period. Note that the variable AC was calculated for both individual and consolidated financial statements because some parent companies do not have balances, unlike their subsidiaries. The results will be presented for the parent company, and later, data based on consolidated statements will be shown to determine the sensitivity of the results and enable comparisons.

Based on the potential relationships between constructs and the accounting choices discussed in the theoretical framework, the metrics used in this study are presented in Table 2.

Table 2 Variables

Variable	Name	Construct	Expected Sign	Proxy
AC	Accounting Choice	Companies that derecognised the balance or maintained the balance of the deferred assets		Dummy variable: D = 0 – derecognise D = 1 – maintain
CG	Level of corporate governance	Companies that have different levels of CG	Derecognise (-)	Dummy variable: D = 0 – does not have D = 1 – has
PE	Administrative participation in earnings	Companies with administrators who participate in profit sharing	Derecognise (-)	Dummy variable: D = 0 – does not compensate D = 1 – compensates
ADR	American Depositary Receipt	Paper issued and negotiated in the New York Stock Exchange	Derecognise (-)	Dummy variable: D = 0 – does not issue ADRs D = 1 – issues ADRs
BIGFOUR	Auditing firm	Companies audited by the Big Four	Derecognise (-)	Dummy variable: D = 0 – not audited by Big Four D = 1 – audited by Big Four
SD	Size of deferred assets		Maintain (+)	Natural logarithm of the Deferred Asset Balance subject to choice. Alternately, the balance of deferred assets/assets subject to choice (the values were divided by 100 million).
REV	Revaluation Reserve	Whether the company had a balance in revaluation reserves on 31/12/2007	Maintain (+)	Dummy variable: D = 0 – No balance D = 1 – Balance greater than zero
DEBT	Debt	Indebtedness measured by: (debt/total assets)	Maintain (+)	Result of the ratio between total debt and total assets ⁴
SIZE	Size of the company		Derecognise (-)	Natural logarithm of total assets (equity or total revenue). Alternately, we used the balance of total assets, equity, and total revenue (the values were divided by 100 million. The database for these values refers to 31/12/2007 ⁵).

⁴ The use of total assets instead of equity is justified by the reduced number of observations because some companies have negative equity. The results were also calculated with this specification, and the conclusions were similar in terms of statistical significance and coefficient signs.

⁵ Selecting the 2007 database is justified to avoid endogeneity problems, given that the 2008 values were already impacted by the accounting choice made regarding deferred assets.

4 DATA ANALYSIS

4.1 Descriptive statistics and frequency analysis

To reduce the effect of outliers, the Windsor technique was applied to the following variables: size of deferred assets (SD), size of the company (SIZE), and debt (DEBT).

Thus, 2% of the total sample was treated (1% from each tail of the distribution)⁶. Alternately, the natural logarithm was used for the SD and SIZE variables. The descriptive statistics are shown in Table 3 below.

Table 3 Descriptive Statistics

Type of Demonstration	Variables	Observations	Mean	Standard Deviation	Minimum	Maximum
Parent company	SD (deferred assets)	95	24262,83	91187,9	1	839257
	SD ln(deferred assets)	96	7,98	2,39	0	13,64
	SIZE (total assets)	95	5587388	19200000	12470	158000000
	SIZE ln(total assets)	95	13,92	1,72	9,43	19,17
	SIZE (equity)	83	473876,9	5432024	10192	31700000
	SIZE ln(equity)	83	13,57	1,64	9,23	18,57
	SIZE (earnings)	73	473876,9	1089212	341	7865776
	SIZE ln(earnings)	73	11,52	2,08	5,83	16,91
	SIZE (revenue)	82	2024192	3598753	82	21800000
	SIZE ln(revenue)	82	12,93	2,5	4,41	18,66
	DEBT	95	0,61	0,6	0,01	3,74
Consolidated	SD (deferred assets)	144	59191,19	293921,2	1	3469846
	SD ln(deferred assets)	144	8,78	2,41	0	15,06
	SIZE (total assets)	142	6783771	22400000	12492	231000000
	SIZE ln(total assets)	142	14,29	1,73	7,43	19,26
	SIZE (equity)	130	2770269	7427155	3880	57000000
	SIZE ln(equity)	130	13,57	1,65	6,14	18,55
	SIZE (earnings)	109	460568,3	1027954	405	8473604
	SIZE ln(earnings)	109	11,37	2,21	3,64	16,88
	SIZE (revenue)	139	3177119	5314405	352	30600000
	SIZE ln(revenue)	139	13,57	2,19	5,52	18,95
	DEBT	142	0,65	0,44	0,09	3,38

SD = size of deferred assets; SD (deferred assets) = balance of deferred assets subject to choice; SD ln(deferred assets) = natural logarithm of the balance of deferred assets subject to choice; SIZE_i = size of the company; SIZE_i (total assets) = balance of total assets; SIZE_i ln(total assets) = natural logarithm of total assets; SIZE_i (equity) = balance of equity; SIZE_i ln(equity) = natural logarithm of equity; SIZE_i (earnings) = balance of earnings; SIZE_i ln(earnings) = natural logarithm of earnings; SIZE_i (revenue) = amount of total revenue; SIZE_i ln(revenue) = natural logarithm of revenue; and ENDIV = value of indebtedness (debt/total assets).

The test group consisted of 96 companies (144 consolidated) that had a balance of deferred assets subject to choice according to the provisions of Law 11.941/2009. Of these companies, 54 (91 consolidated) opted to maintain their balances and 42 (53 consolidated) wrote off the ac-

count against equity. Table 4 shows the correlation matrix between the variables used in this study and those based on the parent company's financial statements. Because the independent variable is dichotomous, it is important to test whether they are highly correlated.

Table 4 Matrix of Correlations

	GC	PE	ADR	BIGFOUR	REV	DEBT	SD (deferred assets)	SD ln(deferred assets)
CG	1,00							
PE	0,09	1,00						
ADR	0,21	0,06	1,00					
BIGFOUR	0,28	0,07	0,12	1,00				
REV	-0,10	0,06	0,01	-0,23	1,00			
DEBT	-0,18	-0,05	-0,05	0,06	0,01	1,00		
SD (deferred assets)	-0,09	0,11	0,33	0,15	0,06	0,06	1,00	
SD ln(deferred assets)	0,06	0,14	0,44	0,07	-0,08	0,06	0,50	1,00

continues

⁶ The results were also calculated without a control for outliers, and the results are qualitatively similar, with the same statistical significance and coefficient signs.

Table 4 continued

	GC	PE	ADR	BIGFOUR	REV	DEBT	SD (deferred assets)	SD ln(deferred assets)
SIZE (total assets)	-0,02	0,05	0,54	0,01	0,20	-0,13	0,79	0,38
SIZE ln(total assets)	0,10	-0,09	0,73	0,23	0,02	0,02	0,47	0,52
SIZE (equity)	0,05	0,04	0,67	0,00	0,18	-0,20	0,61	0,39
SIZE ln(equity)	0,14	-0,07	0,72	0,20	0,02	-0,27	0,42	0,48
SIZE (earnings)	-0,12	0,09	0,55	0,14	0,15	-0,05	0,82	0,41
SIZE ln(earnings)	0,02	0,02	0,58	0,20	-0,11	-0,02	0,40	0,35
SIZE (total revenue)	-0,02	0,15	0,75	0,19	-0,01	0,06	0,69	0,53
SIZE ln(total revenue)	-0,01	0,10	0,56	0,08	0,00	0,00	0,43	0,55

Table 4 indicates that the correlations are typically smaller than 0.20, with two exceptions. The companies that issue ADRs are typically large, and thus, the correlations between this variable and the proxies for size are larger (0.54 to 0.78). The size of deferred assets and the size of the company are also correlated (0.35 to 0.82), as larger companies generally have higher balances of pre-operating costs and restructuring expenses. It is expected that controlling for size (SIZE) in the regressions will allow for the incremental contribution of the variables size (SD) and ADR to be evaluated.

4.2 Results of the logit regression

Equation 1 presents the (stepwise) logistic regression model (stepwise) used in this study with the variables described in Table 2.

Equation (1) – Model

$$AC_i = \beta_0 + \beta_1 CG_i + \beta_2 PE_i + \beta_3 ADR_i + \beta_4 BIGFOUR_i + \beta_5 SD_i + \beta_6 REV_i + \beta_7 DEBT_i + \beta_8 SIZE_i + \varepsilon \quad 1$$

Note that eight specifications were used because of the different measures of the size of the deferred asset balance (SD) and the company (SIZE). Each specification uses one form of measurement for deferred assets (natural logarithm of the deferred asset balance or the balance of deferred assets divided by 100 million) and the size of the company (natural logarithm or the balance of total assets, equity, earnings, or total revenue divided by 100 million).

Different measures of size (SIZE) are used to determine whether the results are consistent and identify different incentives related to the choice of whether to maintain the balance. The results for the parent company are shown in Table 5.

Table 5 Estimation of logit model for the parent company (equation 1)

$$AC_i = \beta_0 + \beta_1 CG_i + \beta_2 PE_i + \beta_3 ADR_i + \beta_4 BIGFOUR_i + \beta_5 SD_i + \beta_6 REV_i + \beta_7 DEBT_i + \beta_8 SIZE_i + \varepsilon$$

AC	1	2	3	4	5	6	7	8
CG	-1,23**	-1,47**	-0,99*	-1,22**	-1,63***	-1,70***	-1,27**	-1,50**
BIGFOUR	1,79***	1,43**	1,67***	1,59**	1,81**	1,47**	1,15*	1,18*
SD								
SD ln(deferred assets)	0,27**		0,22*		0,30**		0,24*	
SD (deferred assets)		3,28**		2,82*		2,58*		4,22**
SIZE								
SIZE ln(total assets)	-0,46**							
SIZE (total assets)		-0,02**						
SIZE ln(equity)			-0,30*					
SIZE (equity)				-0,03**				
SIZE ln(earnings)					-0,30**			
SIZE (earnings)						-0,11*		
SIZE ln(total revenue)							-0,41**	
SIZE (total revenue)								-0,04**
Number of observations	92	92	81	81	79	71	71	79
Prob>Chi2	0,001	0,001	0,007	0,001	0,001	0,004	0,017	0,005
Pseudo R2	0,15	0,15	0,13	0,16	0,18	0,15	0,11	0,14

AC_i = dummy variable that is equal to 1 when firm i opts to maintain the balance of deferred assets and 0 if it opts to derecognise the balance; CG_i = dummy variable that is equal to 1 when firm i participates in different levels of corporate governance of BM&FBovespa and 0 when it does not participate; ADR_i = dummy variable that is equal to 1 when firm i has a program for ADRs and 0 when it does not; PE_i = dummy variable equal to 1 when firm i has a program for administrative participation in earnings and 0 when it does not; $BIGFOUR_i$ = dummy variable equal to 1 when firm i is audited by a Big Four firm and 0 if not; SD_i = size of deferred assets for firm i ; $SD \ln(\text{deferred assets})_i$ = natural logarithm of the balance of the deferred assets of firm i ; $SD(\text{deferred assets})_i$ = balance of the deferred assets of firm i divided by 100 million; REV_i = dummy variable that is equal to 1 when firm i had a balance in the 2007 revaluation reserve account; $DEBT_i$ = value of indebtedness (debt/equity) for firm i ; $SIZE_i$ = size of company i ; $SIZE_i \ln(\text{total assets})$ = natural logarithm of the total assets of company i ; $SIZE_i(\text{total assets})$ = balance of the total assets of firm i divided by 100 million; $SIZE_i \ln(\text{equity})$ = natural logarithm of the equity of company i ; $SIZE_i(\text{equity})$ = balance of the equity of firm i divided by 100 million; $SIZE_i \ln(\text{earnings})$ = natural logarithm of the earnings of company i ; $SIZE_i(\text{earnings})$ = balance of the earnings of firm i divided by 100 million; $SIZE_i \ln(\text{revenue})$ = natural logarithm of the earnings of company i ; $SIZE_i(\text{revenue})$ = balance of the revenue of firm i divided by 100 million.

*, **, and *** indicate statistical significance at the levels of 10%, 5%, and 1%, respectively.

As shown in Table 5, the variables CG, BigFour, SD, and SIZE have statistically significant impacts on the accounting choice depending on the specification of the model. Some variables are only significant at 10%, but it is important to note that there were fewer than 100 observations.

As expected, companies with officially recognised levels of corporate governance opted to derecognise the balance of deferred assets. One possible explanation for this finding is that the desire to voluntarily signal a strong corporate governance structure may be linked to an attempt to approach the international accounting model⁷. These results fit with those of other studies that show a difference in the behaviour of managers and their accounting choices when companies intend to signal “good” governance practices (Ramos & Martinez, 2006; Lopes & Walker, 2012).

The size of the deferred asset balance (SD) was also related to the decision to maintain the balance. When controlling for the size of the company (SIZE), a larger balance size corresponded with a greater probability that the company chose to maintain that balance. This fact confirms the expectation that the managers evaluated the impact of the ownership structure and/or the earnings of the company, supporting the evaluation of this trade-off presented by Cormier, Demaria, Lapointe-Antunes, and Teller (2009).

The ADR variable did not have a significant impact in the sample studied here. Thus, there is no evidence that the behaviours of the companies in this sample group were influenced by their dual listing. It is not possible to say that the choice results from an attempt to make the Brazilian accounting model similar to the U.S. model (US-GAAPs). Note that the lack of statistical significance in the ADR results could be because only 15 firms in the sample issued ADRs, as shown in Table 4 (23 consolidated).

Administrative participation in earnings did not have a significant impact on the accounting choice, indicating that the managers may not consider the amortisation expense to be significant. Another explanation for this result is that the choice to maintain or derecog-

nise the deferred asset balance may not impact stock prices, which would fit with the conclusion of Rezende (2005) that deferred assets are not relevant for the Brazilian market.

The REV variable also did not have a statistically significant impact. Thus, it was not possible to determine conclusively whether a balance in the revaluation reserve influenced the decision to maintain or derecognise the balance of deferred assets. The evidence may show that incentives to maintain the revaluation balance, such as covenants, can be different from incentives to maintain or derecognise the deferred assets.

The behaviour of companies audited by the Big Four firms was expected to be different from that of companies audited by other firms. However, as shown in Table 1, the expectation was that firms audited by a Big Four firm would decide to derecognise the balance because of their attempt to approximate the international model.

The obtained association between Big Four auditing firms and maintaining the balance was not expected based on the literature review. The coefficient should be interpreted with caution because the Big Four variable can indirectly capture other firm characteristics (Lawrence et al., 2011). Because the total sample size was 96 observations (144 consolidated), it was not possible to control for factors such as economic sector⁸.

Thus, to more thoroughly evaluate whether the results reflect the influence of the size of the auditing firm on accounting choices, the eight original specifications were changed to exclude the variable Big Four and include dummy variables for each of the Big Four firms (instead of a single variable representing all four companies).

The results shown in Table 6 are similar in almost all specifications in terms of both coefficient signs and statistical significance. Note that the level of corporate governance does not exhibit a statistically significant effect in specification 3 and shows a smaller statistical significance in some specifications (1, 4, 5, and 6).

⁷ According to IAS 16 – Property, Plant and Equipment and IAS 38 – Intangible Assets.

⁸ The auditing companies are from different sectors and there is not more than one Big Four firm with more than two clients in each sector. The auditing firms and the respective sectors (number of clients) are (a) KPMG – Energy (5), Food and drinks (4), Textiles (3), Steel (2), and Vehicles (2); (b) PriceWaterhouseCoopers – Chemicals (3); (c) Deloitte – Pulp and Paper (3), Trade (2); and Ernst & Young – Transportation (2).

Table 6 Estimation of the model for parent companies (Equation 1 with dummies for each Big Four firm)

$$AC_i = \beta_0 + \beta_1 CG_i + \beta_2 PE_i + \beta_3 ADR_i + \sum_{n=1}^4 \beta_n BIGFOUR_i + \beta_5 SD_i + \beta_6 REV_i + \beta_7 DEBT_i + \beta_8 SIZE_i + \varepsilon$$

AC	1	2	3	4	5	6	7	8
CG	-0,88*	-1,27**	-	-0,98*	-1,26**	-1,18**	-0,85**	-1,32**
BIGFOUR								
KPMG	1,80***	1,76**	1,69***	1,69***	1,74**	1,22**		1,12*
PWC	1,66**	1,69**		1,68**	1,34*			1,68**
SD								
SD ln(deferred assets)	0,34**		0,29**		0,36**		0,24*	
SD(deferred assets)		4,31**		3,79**		2,67*		4,76**
SIZE								
SIZE ln(total assets)	-0,41**							
SIZE (total assets)		-0,02**						
SIZE ln(equity)			-0,32**					
SIZE (equity)				-0,03**				
SIZE ln(earnings)					-0,38**			
SIZE (earnings)						-0,09*		
SIZE ln(total revenue)							-0,25**	
SIZE (total revenue)								-0,04**
Number of observations	92	92	81	81	71	71	79	79
Prob>Chi2	0,001	0,000	0,003	0,001	0,002	0,006	0,044	0,003
Pseudo R2	0,17	0,19	0,14	0,19	0,20	0,15	0,08	0,17

AC_i = dummy variable that is equal to 1 when firm i opts to maintain the balance of deferred assets and 0 if it opts to derecognise the balance; CG_i = dummy variable that is equal to 1 when firm i participates in different levels of corporate governance of BM&FBovespa and 0 when it does not participate; ADR_i = dummy variable that is equal to 1 when firm i issues ADRs and 0 when it does not; PE_i = dummy variable that is equal to 1 when firm i has a program for administrative participation in earnings and 0 when it does not; $BIGFOUR_i$ = dummy variable that indicates whether firm i is audited by a Big Four firm; $KPMG$ = dummy variable that is equal to 1 if firm i is audited by KPMG and 0 otherwise; PwC = dummy variable that is equal to 1 if firm i is audited by PricewaterhouseCoopers and 0 otherwise; $Deloitte$ = dummy variable that is equal to 1 if firm i is audited by Deloitte and 0 otherwise; $Ernst \& Young$ = dummy variable that is equal to 1 if firm i is audited by Ernst & Young and 0 otherwise; SD_i = size of the deferred assets of firm i ; $SD \ln(\text{deferred assets})_i$ = natural logarithm of the balance of the deferred assets of firm i ; $SD(\text{deferred assets})_i$ = balance of the deferred assets of firm i divided by 100 million; REV_i = dummy variable that is equal to 1 when firm i has a balance in the 2007 revaluation reserve account; $DEBT_i$ = value of indebtedness (debt/equity) of firm i ; $SIZE_i$ = size of company i ; $SIZE_i \ln(\text{total assets})$ = natural logarithm of the total assets of company i ; $SIZE_i(\text{total assets})$ = balance of the total assets of firm i divided by 100 million; $SIZE_i \ln(\text{equity})$ = natural logarithm of the equity of company i ; $SIZE_i(\text{equity})$ = balance of the equity of firm i divided by 100 million; $SIZE_i \ln(\text{earnings})$ = natural logarithm of the earnings of company i ; $SIZE_i(\text{earnings})$ = balance of the earnings of firm i divided by 100 million; $SIZE_i \ln(\text{revenue})$ = natural logarithm of the earnings of company i ; $SIZE_i(\text{revenue})$ = balance of the revenue of firm i divided by 100 million.

*, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Two of the auditing firms are positively associated with companies that maintained the balance (KPMG and PricewaterhouseCoopers). No coefficient was statistically significant for Deloitte, and Ernst & Young was only significant for the eighth specification. Thus, the results can be interpreted based on Lawrence et al. (2011), who showed that differences in quality between companies based on whether they are audited by the Big Four firms can only reflect client characteristics; they cannot reflect the influence of the auditing company.

Because the results are not consistent among each of the Big Four firms, it is not possible to say that the effect in Table 5 was caused by the size of the auditing firm. An alternative explanation for this result is the establishment of individual policies by each auditing firm or even the fact

that different firms audit clients from different sectors. Future studies on accounting choices should use other control variables, such as sector, to segregate the firm characteristics from the auditor.

4.3 Sensitivity analysis

To evaluate whether the characteristics that guided the parent companies' choices are similar for the entire economic group, logistic regression was used for the consolidated financial statements using the $BIGFOUR^9$ variable and dummies for each Big Four firm: KPMG, PWC, Deloitte, and Ernst & Young.

The results shown in Table 7 indicate that when controlling for the size of the firm, higher amounts of deferred assets (SD) correspond to a higher probability that the firm maintains the balance. As for the different levels of corpo-

⁹ Only the results for the regressions that used the dummies for each Big Four firm are shown. The results with the $BIGFOUR$ dummy are similar to those shown in Table 4 in terms of coefficient signs and statistical significance.

rate governance according to BM&FBOVESPA (CG), the relationship was reversed. It is not possible to claim that auditing performed by a Big Four firm implies the choice to maintain the deferred asset balance. The coefficients are positive and significant for KPMG and PWC (except for

specifications 5 and 6). For Ernst & Young, the coefficients are positive and significant at the 10% level only for three specifications (2, 4, and 8). For Deloitte, the coefficients are only statistically significant for two specifications (5 and 6), but they are negative, unlike the others.

Table 7 – Estimation of the model for consolidated statements (equação 1 whit dummies for each Big Four firm)

$$AC_i = \beta_0 + \beta_1 CG_i + \beta_2 PE_i + \beta_3 ADR_i + \sum_{n=1}^4 \beta_n BIGFOUR_i + \beta_5 SD_i + \beta_6 REV_i + \beta_7 DEBT_i + \beta_8 SIZE_i + \varepsilon$$

AC	1	2	3	4	5	6	7	8
Constant	-	-	-	-	-	1,10***	-	-
GC	-1,42***	-1,62***	-1,34***	-1,53***	-1,40***	-1,40***	-1,52***	-1,54***
BIGFOUR								
KPMG	1,63***	2,08***	1,57***	2,03***	1,06*	1,32**	1,82***	2,23***
PWC	2,05***	2,36***	2,16***	2,38***			1,98**	2,30***
Deloitte					-1,49**	-1,28*		
Ernst & Young		1,16*		1,37*				1,22*
SD								
SD ln(deferred assets)	0,34***		0,42***		0,46***		0,37***	
SD(deferred assets)		2,6**		2,52***		2,1**		2,78**
SIZE								
SIZE ln(total assets)	-0,36**							
SIZE (total assets)		-0,01***						
SIZE ln(equity)			-0,41**					
SIZE (equity)				-0,03***				
SIZE ln(earnings)					-0,41**			
SIZE (earnings)						-0,13***		
SIZE ln(total revenue)							-0,37***	
SIZE (total revenue)								-0,02**
Number of observations	134	134	124	124	104	104	131	131
Prob>Chi2	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Pseudo R2	0,18	0,24	0,20	0,25	0,23	0,24	0,20	0,24

AC_i = dummy variable that is equal to 1 when firm i opts to maintain the balance of deferred assets and 0 if it opts to derecognise the balance; CG_i = dummy variable that is equal to 1 when the corporate governance of firm i is recognised by BM&FBovespa and 0 when it does not participate; ADR_i = dummy variable that is equal to 1 when firm i issues ADRs and 0 when it does not; PE_i = dummy variable that is equal to 1 when firm i has a program for administrative participation in earnings and 0 when it does not; $BIGFOUR_i$ = dummy variable that is equal to 1 when firm i is audited by a Big Four firm and 0 otherwise; $KPMG$ = dummy variable that is equal to 1 when firm i is audited by KPMG and 0 otherwise; PwC = dummy variable that is equal to 1 when firm i is audited by PricewaterhouseCoopers and 0 otherwise; $Deloitte$ = dummy variable that is equal to 1 when firm i is audited by Deloitte and 0 otherwise; $Ernst \& Young$ = dummy variable that is equal to 1 when firm i is audited by Ernst & Young and 0 otherwise; SD_i = size of the deferred assets of firm i ; $SD \ln(\text{deferred assets})_i$ = natural logarithm of the balance of the deferred assets of firm i ; $SD(\text{deferred assets})_i$ = balance of the deferred assets of firm i divided by 100 million; REV_i = dummy variable that is equal to 1 when firm i had a balance in its 2007 revaluation reserve account; $DEBT_i$ = value of indebtedness (debt/equity) for firm i ; $SIZE_i$ = size of company i ; $SIZE_i \ln(\text{total assets})$ = natural logarithm of the total assets of company i ; $SIZE_i(\text{total assets})$ = balance of the total assets of firm i divided by 100 million; $SIZE_i \ln(\text{equity})$ = natural logarithm of the equity of company i ; $SIZE_i(\text{equity})$ = balance of the equity of firm i divided by 100 million; $SIZE_i \ln(\text{earnings})$ = natural logarithm of the earnings of company i ; $SIZE_i(\text{earnings})$ = balance of the earnings of firm i divided by 100 million; $SIZE_i \ln(\text{revenue})$ = natural logarithm of the earnings of company i ; $SIZE_i(\text{revenue})$ = balance of the revenue of firm i divided by 100 million.

*, **, and *** indicate statistical significance at the levels of 10%, 5%, and 1%, respectively.

The sensitivity analysis indicates that the same characteristics explain the decision to maintain or derecognise the balance of deferred assets for the parent

company and for the economic group as a whole. These results can contribute to future research on intragroup accounting choices.

5 CONCLUSION

Laws 11.638/2007 and 11.941/2009 introduced significant changes to accounting standards in Brazil. The

implementation of these laws enabled this study of the firm characteristics that are related to accounting choi-

ces made regarding deferred assets.

This analysis identified 96 companies (144 consolidated) that could opt to maintain or lower the balances of their deferred assets. The analysis identified three variables that were related to the decision of how to treat this balance: the levels of corporate governance according to BM&FBovespa, audit performance by Big Four firms, and the size of the deferred assets, controlling for the size of the company. These results have implications for regulators and companies.

The results regarding governance indicate that companies that seek to attract investors through the BM&FBOVESPA system are more likely to implement international accounting policies. This fact, combined with the non-significant result for the ADR variable, may imply that companies that had exposure to different accounting models before the convergence in Brazil prefer an accelerated reduction of these differences.

The variable indicating whether a company is audited by a Big Four firm raises new questions regarding why the clients of large auditing firms behave differently than those who are audited by smaller firms. The

results show that the variable indicating the size of the auditor can be an indirect proxy for sets of firm characteristics, making it difficult to interpret these results. This issue presents an opportunity for future research because it is related to accounting choices, which is a theme that has received little attention in Brazil and is increasingly discussed in the literature (Lawrence et al., 2011).

The size of deferred assets can influence a company's choice as to whether the balance should be maintained. This behaviour is consistently supported after controlling for company size (SIZE) using different measurements. This fact highlights that the size of the balance can be fundamental in directing choices (Cormier et al., 2009). These results suggest that a similar study should be performed on accounting choices made for the adoption of International Accounting Standards in Brazil.

In conclusion, this study identified certain company characteristics that are relevant for accounting choices, thus contributing to the literature on the manner in which economic incentives impact the creation of information in the Brazilian market.

References

- Almeida, J. E. F., & Almeida, J. C. G. (2007). Auditoria e earnings management: estudo empírico nas empresas de capital aberto auditadas pelas Bigfour e demais firmas de auditoria. *Anais do Congresso USP de Controladoria e Contabilidade*, Universidade de São Paulo, São Paulo, Brasil, 7.
- Andrade, A., & Rossetti, J. P. (2007). *Governança corporativa: fundamentos, desenvolvimento e tendências*. (3. ed.). São Paulo: Atlas.
- Azevedo, F. B., & Costa, F. M. (2008). Efeito da troca da firma de auditoria no gerenciamento de resultados das companhias abertas brasileiras. *Anais do Congresso da Associação Nacional dos Programas de Pós-Graduação em Ciências Contábeis - ANPCONT*, Salvador/BA, São Paulo, Brasil, II.
- Bartov, E., & Bodnar, G. M. (1996, July). Alternative accounting methods, information asymmetry and liquidity: theory and evidence. *The Accounting Review*, 71 (3), 397-418.
- Beasley, M. S., & Petroni, K. (2001). Board independence and audit-firm type. *Auditing: A Journal of Practice & Theory*, 20 (1), 97-114.
- Beatty, A., & Weber, J. (2003, January). The effects of debt contracting on voluntary accounting method changes. *The Accounting Review*, 78, (1), 119-142.
- Comissão de Valores Mobiliários (1999). *Deliberação n. 294 de 26 de março de 1999*. Diário Oficial [da] República Federativa do Brasil, Brasília, 30 março, Seção 1, p. 205.
- Comissão de Valores Mobiliários. (2008). *Deliberação n. 565/2008, de 17 de dezembro de 2008*. Aprova o Pronunciamento Técnico CPC 13 emitido pelo Comitê de Pronunciamentos Contábeis que trata da Adoção Inicial da Lei n. 11.638/07. Rio de Janeiro: Comissão de Valores Mobiliários.
- Comitê de Pronunciamentos Contábeis. (2008). *Pronunciamento Técnico CPC 13, de 05 de dezembro de 2008*. Brasília.
- Cormier, D., Demaria, S., Lapointe-Antunes, P., & Teller, R. (2009). First-time adoption of IFRS, managerial incentives, and value-relevance: some french evidence. *Journal of International Accounting Research*, 8 (2), 1-22.
- DeGeorge, F., Patel, J., & Zeckhauser, R. (1999). Earnings management to exceed thresholds. *Journal of Business*, 72, 1-33.
- Dias Filho, J. M., & Machado, L. H. B. (2004). Abordagens da pesquisa em contabilidade. In: Iudicibus, S., & Lopes, A. B. (Orgs.). *Teoria avançada da contabilidade* (pp. 15-64). São Paulo: Atlas.
- Feldman, D. A., & Read, W. J. (2010, May). Auditor conservatism after Enron. *Auditing: A Journal of Practice and Theory*, 29 (1), 267-278.
- Fields, T. D., Lys, T. Z., & Vincent, L. (2001). Empirical research on accounting choice. *Journal of Accounting and Economics*, 31, 255-307.
- Hair, J. F. Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (2006). *Análise multivariada de dados*. (5. ed.). São Paulo: Bookman.
- Healy, P. M. (1985, April). The effect of bonus schemes of accounting decisions (Symposium on Management Compensation and the Managerial Laboratory Market). *Journal of Accounting & Economics*, Rochester, 7, 85-107.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3 (4), 305-360.
- Lawrence, A., Minutti-Meza, M., & Zhang, P. (2011, January). Can Big 4 versus Non-Big 4 differences in audit-quality proxies be attributed to client characteristics? *The Accounting Review*, 86 (1), 259-286.
- Lei n. 6.404, de 15 de dezembro de 1976. (1976). Diário Oficial [da] União, Brasília, 17 dezembro. Recuperado de http://www.planalto.gov.br/ccivil_03/LEIS/L6404consol.htm.
- Lei n. 11.638, de 28 de dezembro de 2007. (2007). Diário Oficial [da] União, Brasília, Sessão 1 ed. extra, p. 2.
- Lei n. 11.941, de 27 de maio de 2009. (2009). Diário Oficial [da] União, Brasília, 28 maio, Sessão 1, p. 3.
- Lin, Z. J., & Liu, M. (2009). The impact of corporate governance on auditor choice: Evidence from China. *Journal of International Accounting, Auditing and Taxation*, 18, 44-59.
- Lopes, A., & Tukamoto, Y. S. (2007, janeiro-março). Contribuição ao estudo do gerenciamento de resultados: uma comparação entre as companhias abertas brasileiras emissoras de ADRs e não emissoras de ADRs. *Revista de Administração - RAUSP*, São Paulo, 42 (1), 86-96.
- Lopes, A., & Walker, M. (2012). Asset revaluations, future firm performance and firm-level corporate governance arrangements: new evidence from Brazil? *British Accounting Review (Forthcoming)*.
- Martinez, A. L. (2010). Quando o conselho de administração e auditoria evitam earnings management? Evidências empíricas para empresas brasileiras. *Revista de Informação Contábil*, 4, 76-93.
- Martins, G. A. (2001). *Estatística geral e aplicada*. São Paulo: Atlas.
- Medida provisória n. 449, de 3 de dezembro de 2008. (2008). Diário Oficial [da] União, Brasília, 4 dezembro, Sessão 1, p. 41.
- Paulo, E. (2007). *Manipulação das informações contábeis: uma análise teórica e empírica sobre os modelos operacionais de detecção de gerenciamento de resultados*. Tese de doutorado em Ciências Contábeis, Departamento de Contabilidade e Atuária, Universidade de São Paulo, São Paulo, SP, Brasil.
- Perlingeiro, B. C. L. (2009). *Teoria das escolhas contábeis: fair value de derivativos em bancos no Brasil*. Dissertação de mestrado em Ciências Contábeis, Departamento de Contabilidade e Atuária da Universidade de São Paulo, São Paulo, SP, Brasil.

- Ramos, G. M., & Martinez, A. L. (2006, julho-dezembro). Governança corporativa. *Revista Contemporânea de Contabilidade (RCC)*, ano III, 1 (6), 143-164.
- Rezende, A. J. (2005, janeiro-junho). A relevância da informação contábil no processo de avaliação de empresas da nova e velha economia – uma análise de investimentos em ativos intangíveis e seus efeitos em value-relevance do lucro e patrimônio líquido. *Brazilian Business Review*, 2 (1), 33-52.
- Santana, M. H. (2008). The novo mercado. In *Focus 5: Novo Mercado and its followers: case studies in corporate governance reform*. Global Corporate Governance Forum. International Finance Corporation.
- Santos, L. S. R., & Costa, F. M. (2008, setembro-dezembro). Conservadorismo contábil e timeliness: evidências empíricas nas demonstrações contábeis de empresas brasileiras com ADRs negociados na Bolsa de Nova Iorque. *Revista de Contabilidade e Finanças*, 19 (48), 27-36.
- Schvirck, E. (2006). *A reavaliação de ativos e seus impactos na análise das demonstrações contábeis no Brasil*. Dissertação de mestrado em Controladoria e Contabilidade, Programa de Pós-Graduação da Universidade de São Paulo, São Paulo, SP, Brasil.
- Schvirck, E., & Giasson, O. R. (2008). Perfil econômico-financeiro de empresas que fazem e que não fazem reavaliação de ativos. *BBR. Brazilian Business Review*, Vitória, 5, 255-270.
- Shleifer, A., & Vishny, R. W. (1997, June). A survey of corporate governance. *Journal of Finance*, LII, (2), 737-783.
- Silva, A. H. C. (2008). *Escolha de práticas contábeis no Brasil: uma análise sob a ótica da hipótese dos covenants contratuais*. Tese de doutorado em Ciências Contábeis, Programa de Pós-Graduação da Universidade de São Paulo, São Paulo, SP, Brasil.
- Silveira, A. M., Barros, L. A. B. C., & Famá, R. (2004). Qualidade da governança corporativa no Brasil e os fatores que a determinam. *Anais do Encontro Anual da ANPAD*, Curitiba, 1-16, 27.
- Silveira, M. A. (2006). Gerenciamento de resultados e opções de ações: uma pesquisa em companhias abertas no Brasil. *Anais do Congresso USP de Controladoria e Contabilidade*, São Paulo, USP, CD-ROM, 6.
- Stolowy, H., & Breton, G. (2004). Accounts manipulation: a literature review and proposed conceptual framework. *Review of Accounting and Finance*, 3, 5-92.
- Watts, R. L. (2003, September). Conservatism in accounting part I: explanations and Implications. *Accounting Horizons*, 17 (3), 207-221.
- Watts, R. L., & Zimmerman, J. L. (1986). *Positive accounting theory*. New Jersey: Prentice-Hall, Englewood Cliffs.